Innovative mobile generator for emergency fast charging of electric vehicles and drones - (EV Rescue DC 20 kW)

Summary

Profile type	Company's country	POD reference
Technology offer	**Poland**	**TOPL20250617003**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Commercial agreement with technical assistance**	**• World**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**17 Jun 2025** **17 Jun 2026**	**17 Jun 2025**

General Information

Short summary

A Polish company has developed a compact, lightweight (55 kg) and efficient mobile generator designed for emergency fast charging of electric vehicles (EVs) and drones. Operating on LPG or petrol, the solution delivers up to 20 kW of continuous DC power and is optimized for rapid deployment in crisis or off-grid conditions. The company is looking for commercial, B2B, and R&D partners interested in further development, distribution, or field testing.

Full description

The Polish SME has created an innovative portable generator – EV Rescue DC 20 kW – capable of delivering high-power DC fast charging (CCS2) for electric vehicles and aerial drones in critical or remote scenarios. The solution is designed for emergency mobility support, including roadside assistance, military operations, field hospitals, and off-grid construction sites.

The generator features a net continuous output of 18–20 kW, is fuel-flexible (LPG or petrol), and weighs only 55 kg, ensuring easy transport and quick deployment. In optimal conditions, it can provide up to 50 km of EV range in less than 45 minutes.

This innovative product meets the growing need for mobile, off-grid EV charging infrastructure, especially in locations where grid access is limited or non-existent.

Key technical features:

- Continuous DC output: 18–20 kW
- CCS2 emergency fast-charging interface
- Dual fuel: LPG (2–3 kg composite tank) or petrol
- Total unit weight: 55 kg
- Integrated control and cooling module
- Includes mobile app for operation and diagnostics

Applications include:

- Emergency and roadside EV charging (including highways)
- Military and humanitarian missions
- EV fleet and service support (e.g. mobile bus service units)
- Off-grid construction projects
- Mobile energy supply in disaster zones or rural areas
- Remote medical support and field hospitals

Kit contents:

- EV Rescue 20 kW generator
- CCS2 DC charging cable
- Control module with integrated cooling
- Documentation and mobile app

The company is now seeking commercialisation partners, B2B collaborators, and R&D entities interested in:

Advantages and innovations

Lightweight and portable (55 kg) design for field use

Fast charging capability (up to 50 km EV range in <45 min)

Dual-fuel flexibility: LPG or petrol

Ideal for critical infrastructure, fleet service, and rescue missions

Enables energy independence in off-grid locations

Technical specification or expertise sought

Stage of development

Concept stage

IPR Status

Secret know-how

IPR Notes

Sustainable Development goals

- **Goal 7: Affordable and Clean Energy**

Partner Sought

Expected role of the partner

The company seeks:

Commercial partners for distribution and sales

B2B collaborations for fleet and energy service integration

R&D partners for further technical development and adaptation to specific market needs

Type of partnership

Type and size of the partner

Commercial agreement with technical assistance

- **SME 50 - 249**

Dissemination

Technology keywords

- **04007001 - Energy management**
- **04007004 - Thermal insulation**
- **04002005 - Generators, electric engines and power converters**

Market keywords

- **06008 - Energy Storage**
- **06011 - Energy for Transport**
- **06006003 - Heat recovery**

Targeted countries

- **World**

Sector groups involved